IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method ~~of forming an integrated circuit heat sink~~ comprising:
forming an integrated circuit heat sink including:
forming a metal conductive structure having a cavity, the cavity including a cavity surface sloping upward from a low area located at a center of the cavity surface;
injecting a mixture including a phase change material and a number of particles into the cavity; and
~~injecting a plurality of spheres into the phase change material; and~~
sealing the cavity.

2. (Previously Presented) The method of claim 1, wherein forming a metal conductive structure having a cavity comprises:
forming a metal conductive structure having a cavity including a cavity surface having a plurality of ramp structures formed on the cavity surface.

3. (Currently Amended) The method of claim 1, wherein injecting a mixture including a phase change material and a number of particles into the cavity comprises:
injecting TH58 into the cavity.

4. (Currently Amended) The method of claim 1, wherein injecting a mixture including a phase change material and ~~a plurality of~~ a number of particles ~~spheres~~ into the cavity comprises:
injecting a plurality of solid spheres into the cavity.

5. (Previously Presented) The method of claim 1, wherein sealing the cavity comprises:
closing an injection hole in the metal conductive structure.

6-16. (Canceled)

17. (Currently Amended) A method ~~of forming an integrated circuit heat sink~~ comprising:
forming an integrated circuit heat sink including:
forming a metal conductive structure having a cavity and a plurality of fins, the cavity including a cavity surface having a plurality of ramp structures formed on the cavity surface;
injecting a mixture including a phase change material and a number of particles into the cavity; and
~~injecting a plurality of mixing spheres into the phase change material; and~~
sealing the cavity.

18. (Previously Presented) The method of claim 17, wherein forming a metal conductive structure having a cavity and a plurality of fins includes forming a substantially flat surface on an external surface of the metal conductive structure.

19. (Previously Presented) The method of claim 18, wherein forming a substantially flat surface on an external surface of the metal conductive structure includes forming the flat surface by machining.

20. (Previously Presented) The method of claim 18, wherein forming a substantially flat surface on an external surface of the metal conductive structure includes forming the flat surface having a footprint that is significantly larger than the surface area of an integrated circuit die to which the metal conductive structure is to be attached.

21. (Currently Amended) A method ~~of forming an integrated circuit heat sink~~ comprising:
forming an integrated circuit heat sink including:
forming a metal conductive structure having a cavity;

injecting a mixture including a phase change material and a number of particles into the cavity, wherein each particles in the number of particles has a density about equal to the density of the phase change material; and

~~injecting a phase change material into the cavity;~~

~~Intermixing a plurality of fluid mixing spheres having a density about equal to the density of the phase change material into the phase change material; and~~

sealing the cavity.

22. (Currently Amended) The method of claim 21, wherein injecting a mixture including a phase change material and a number of particles into the cavity includes intermixing a plurality of spheres into the phase change material including ~~includes~~ selecting a number of the plurality of spheres intermixed to be a large enough number to enhance convective cooling in the phase change material.

23. (Previously Presented) The method of claim 21, further including coupling the metal conductive structure to an integrated circuit die.

24. (Currently Amended) A method ~~of forming an integrated circuit heat sink~~ comprising: forming an integrated circuit heat sink including:

forming a pair of symmetrical structures, each of the pair of symmetrical structures substantially identical to the other, each of the pair of symmetrical structures having a volume;

coupling the pair of symmetrical structures to form a cavity;

injecting a mixture including a phase change material and a number of particles into the cavity; and

~~injecting a phase change material into the cavity;~~

~~injecting a plurality of fluid mixing spheres into the phase change material; and~~

sealing the cavity.

25. (Previously Presented) The method of claim 24, wherein forming a pair of symmetrical structures includes forming the volume of each of the pair of symmetrical structures to be approximately one-half of a volume of the cavity.

26. (Previously Presented) The method of claim 24, wherein forming a pair of symmetrical structures includes forming fins on an external surface of each of the pair of symmetrical structures.

27. (Previously Presented) The method of claim 26, wherein forming fins on an external surface of each of the pair of symmetrical structures includes attaching the fins using a metal fusing process.

28. (New) The method of claim 1, wherein injecting a mixture including a phase change material and a number of particles into the cavity comprises:

injecting a plurality of hollow spheres into the cavity.

29. (New) The method of claim 17, wherein each of the number of particles has an approximately spherical shape.

30. (New) The method of claim 24, wherein each of the number of particles has an approximately spherical shape.